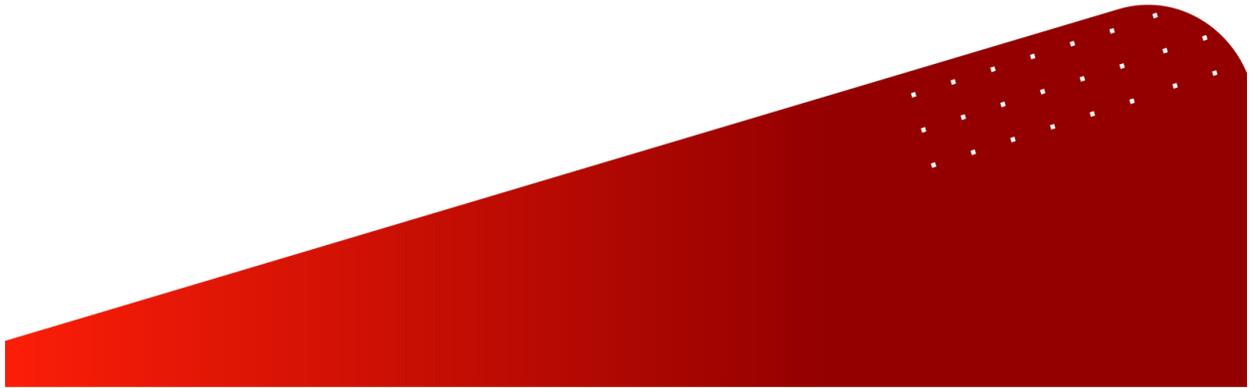


ADENDUM #1- INSTITUTIONAL CATALOG 2021-2022
Revised on June 16, 2021



Catalog Addendum 2021-2022

The following is the amendment to the Institution's Catalog aligned to present the two new members of the university institutional board composition, changes in personnel at the central level. Also, modifications regarding the costs at the undergraduate level, since the costs were unified after the merger. Also, to include the academic program the Associate Degree of Full Stack Developer offered at the Caguas Main Campus.

Page 11- Modifications to Columbia Central University Institutional Board Composition.

BOARDS COMPOSITION

Renovus Holdings I, LLC:

1. Atif Gilani - Owner Director
2. Bradley Whitman - Owner Director
3. José A. Córdova - Management Director
4. Daritza Mulero - Management Director
5. Zack Shah (zshah@lincolninternational.com) - Independent Director

Columbia College Corporation:

1. Atif Gilani
2. Bradley Whitman

Columbia Central University Institutional Board:

1. Atif Gilani - Chair
2. Bradley Whitman
3. Grayson Harcourt
4. Sara Salva - Independent Director - Secretary
5. Guillermo Nigaglioni - Independent Director - Vice Chair
6. Gladys Cora - Independent Director
7. Francisco Bartolomei - Independent Director
8. José A. Córdova (ex officio, non-voting member)

Page 12- Modifications are made to positions in the university's central administration.

CENTRAL OFFICE ADMINISTRATIVE PERSONNEL

Daritzza Mulero Méndez
MBA, Columbia Centro Universitario
BBA, Universidad de Puerto Rico

Vice President of Planning and Assessment

Vacant

Vice President of Administration and Finance

Page 217- The Associate Degree in Full Stack Developer, offered at the Caguas Campus, is added to the School of Technology.

ASSOCIATE DEGREE IN FULL STACK DEVELOPER

The Full Stack Developer program is a modality of the set of disciplines dealing with the fundamentals that support computing, known as Computer Science. We are talking about a developer capable of designing and implementing projects both on the server side and on the client side, responding to the transition from monolithic architecture applications to more distributed architectures, based on microservices, from which derive not only classical aspects such as information storage, but also part of the processing of this information and the services they generate. The program's mission is to create programmer developers that cover the base of a traditional programmer and aimed at platforms of the future, such as mobile, cloud and web. It covers the dominant languages in the market, plus emerging ones with accelerated growth as well as modern development techniques such as Agile and DevOps, filling a need in the local and international market.

CURRICULAR STRUCTURE
GENERAL EDUCATION COURSES

Prescribed: 21 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMU	3010	Effective Communication	45	3
ENGL	1101	Basic English I	60	3
ENGL	1102*	Basic English II	45	3
ENGL	3001	Conversational and compositional English	45	3
SEMI	1105	College and Career Success Seminar	45	3
SPAN	1101	Basic Spanish I	60	3
SPAN	1102*	Basic Spanish II	45	3

Sub-total: **345 hours** **21 credits**

RELATED COURSES

Prescribed: 24 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
COMP	1205	Introduction to Computers	60	3
COMP	1711	Client / Server Operating Systems Management	60	3
COMP	2414	Web Portal Design and Creation	60	3
MATH	1701	Applied Mathematics	45	3
COMP	1702*	Database Administration SQL	60	3
COMP	1703*	Network Administration and Diagnostics	60	3
COMP	2408*	SQL Database Development	60	3
ENTR	2701	Entrepreneurship and Operation of a Company	45	3

Sub-total: **450 hours** **24 credits**

PROFESSIONAL EDUCATION COURSES

Prescribed: 23 credits

COURSE	CODE	COURSE NAME	CONTACT HOURS	CREDITS
FSDE	1701	Introduction to Computing and Development Methodologies	30	2
FSDE	1702*	WEB Application Development Hypertext Preprocessor (PHP)	60	3
FSDE	1703*	JavaScript programming with frameworks and "JS" libraries	60	3
FSDE	1704*	Development using .NET tools	60	3
FSDE	2701*	Web Applications Security	60	3
FSDE	2702*	Application Development with Python	60	3
FSDE	2703*	JAVA application development with focus on mobile devices	60	3
FSDE	2704*^	Development and Operations Integration	60	3

Sub-total:

450 hours

23 credits

GRADO ASOCIADO EN FULL STACK DEVELOPER

PROGRAMA DE ESTUDIOS SUGERIDO**

COURSES	CODE	COURSE NAME	PREREQUISITES	CREDITS
FIRST TERM: 15 CREDITS				
COMP	1205	Introduction to Computers	----	3
COMP	1711	Client / Server Operating Systems Management	----	3
COMP	2414	Web Portal Design and Creation	----	3
SEMI	1105	College and Career Success Seminar	----	3
FSDE	1701	Introduction to Computing and Development Methodologies	----	2
SECOND TERM: 12 CREDITS				
COMP	2408	SQL Database Development	COMP 1205	3
SPAN	1101	Basic Spanish I	----	3
FSDE	1702	WEB Application Development Hypertext Preprocessor (PHP)	FSDE 1701 COMP 2414	3
COMP	1703	Network Administration and Diagnostics	COMP 1711	3
THIRD TERM: 15 CREDITS				
FSDE	1703	JavaScript programming with frameworks and "JS" libraries	FSDE 1701 COMP 2414	3
COMP	1702*	Database Administration SQL	COMP 1711 COMP 2408	3
SPAN	1102*	Basic Spanish II	SPAN 1101	3
ENGL	1101	Basic English I	----	3
FSDE	1704	Development using .NET tools	COMP 1205 FSDE 1701	3

COURSES	CODE	COURSE NAME	PREREQUISITES	CREDITS
FOURTH TERM: 15 CREDITS				
FSDE	2701	Web Applications Security	COMP 1205 COMP 2414	3
FSDE	2702	Application Development with Python	COMP 2414 FSDE 1701	3
FSDE	2703	JAVA application development with focus on mobile devices	COMP 2414 FSDE 1701	3
ENGL	1102*	Basic English II	ENGL 1101	3
MATH	1701	Applied Mathematics	----	3
FIFTH TERM: 12 CREDITS				
ENTR	2701	Entrepreneurship and Operation of a Company	MATH 1701	3
FSDE	2704^	Development and Operations Integration	FSDE 1701 FSDE 1702 FSDE 1703 FSDE 1704 FSDE 2701 FSDE 2702 FSDE 2703	3
ENGL	3001	Conversational and compositional English	----	3
COMU	3010	Effective Communication	----	3

Full Stack Developer Associate's Degree Grand Total: 68 credits and 1,245 hours

----Courses without prerequisites

*Courses with prerequisites

*^*Courses with prerequisites and Capstone course to be enrolled in last term.

MINIMUM GRADE POLICY

Students enrolled in the Associate Degree in Full Stack Developer must earn a minimum grade of C by passing all professional and related courses, except for Development and Operations Integration (FSDE 2704) which must be passed with a B or better.

COURSES DESCRIPTION

COMP 1205 Introduction to Computers

3 Credits

60 Hours

This course prepares students with useful technological tools of personal computers that are necessary for a better professional performance. Students learn about electronic equipment to process data, their interrelation with the computer and the use of the current operating system, as well as the basics of applications such as word processors, electronic presentations, and spreadsheets. Practice in the basic use of the Internet and e-mail is also available. Students will be evaluated through assignments, evaluations, and labs. This course is offered in face-to-face and non-face-to-face mode. Lab use is required.

*This course is also offered in non-face-to-face mode.

COMP 1711 Client/Server Operating Systems Management 3 Credits 60 hours

This course focuses on understanding how operating systems work and how to administer them. The student will interact with the different operating systems and how they are configured to work on the network. Students will be exposed to the understanding of how networks work, how they interact and how the world connects. Evaluated with exams, application and practice exercises, special assignments, and labs. Lab use is required.

COMP 1702 Database Administration SQL 3 Credits 60 hours

Prerequisites: COMP 1711, COMP 2408

This course focuses on SQL server and database administration. Best practices for installing, configuring, and maintaining a SQL database server are discussed. It focuses on the basic structure of a SQL database such as fields, tables, keys, data types, stored processes, triggers, and views. The concepts of database security and high availability are included. Assessed by exams, labs, and projects. Laboratory use is required.

COMP 1703 Network Administration and Diagnostics 3 Credits 60 hours

Prerequisites: COMP 1711

Understanding how communication networks work is paramount for the application developer. This course focuses on understanding how information networks work and how operating systems interact with the network. The student will interact with the

different operating systems and how they are configured to work on the network and will be exposed to the understanding of how networks work, how they interact and how the world is connected. It is evaluated with exams, projects, and labs among others. Lab use is required.

COMP 2408 SQL Database Development 3 Credits 60 hours

Prerequisites: COMP 1205

The course provides the student through lecture, demonstrations, practical and application exercises, complete database development techniques and emphasizes database programming with macros. Emphasis is placed on further development of functional database planning and design skills. The fundamentals of Structured Query Language (SQL) as a relational file manager are used. The SQL language is handled in depth. Use of the laboratory is required.

COMP 2414 Web Portal Design and Creation 3 Credits 60 hours

The course presents different web development techniques. It emphasizes on the interaction of different languages for the creation of a page; languages such as JavaScript, jQuery, HTML, and the classic CSS. It works with the application programming interface (API) and content management systems such as Word Press. It uses programming environments to create routines and modules that integrate with interactive Internet pages and the ability to create mobile applications on the web. Evaluated through hands-on exercises, labs, and projects. Requires use of the laboratory.

COMU 3010 Effective Communication 3 Credits 60 hours

The purpose of the course is for the student to develop oral and written communication skills, processes, and resources to achieve effective communication. The importance of interpersonal relationships and the impact of mass media will be emphasized. The teaching and learning process will be carried out through different presentation techniques, oral reports, readings related to the course objectives, and the use of technological and organizational innovations. This course is offered on-site and on-line.

ENGL 1101 Basic English I**3 Credits 60 hours**

The purpose of this course is to improve the learner's listening and speaking skills. Listening focuses on superficial comprehension and specific details, while speaking emphasizes the skills necessary for everyday communication. In addition, students will increase their vocabulary and study basic grammatical structures. Listening activities, oral presentations, class discussions, lectures and short readings are included.

ENGL 1102 Basic English II**3 Credits 45 Hours***Prerequisite: ENGL 1101*

This course is designed to develop students' reading, writing, and critical thinking skills. Students will expand their vocabulary, increase their proficiency in text analysis, gain knowledge of basic grammatical structures, and improve their writing skills. Students will also continue to develop their listening and speaking skills. Selected short readings, class discussions, lectures, and paragraph writing are included.

ENTR 2701 Entrepreneurship and Operation of a Company 3 Credits 45 Hours*Prerequisite: MATH 1701*

The course will present the workings of a business and the methods used in the industry to effectively create and manage your own business. Emphasis is placed on the creation of a business plan and through the creation of a business plan, the functioning of a company is explained and why each of the processes required in the business plan is necessary. It is evaluated with exams and projects.

FSDE 1701 Introduction to Computing and Development Methodologies**2 Credits 30 hours**

The course presents the origins of computing technologies and their evolution. It discusses the topics to start coding and understand the context of its code and how this field affects our lives. It emphasizes essential techniques for computer programming, as well as modern development methodologies for the creation of applications. It works with the basic concepts necessary to understand the stages of development. It is evaluated with exams and assignments.

**FSDE 1702 WEB Application Development Hypertext Preprocessor (PHP) 3 Credits
60 hours**

Prerequisites: COMP 2414, FSDE 1701

The course emphasizes on structured object-oriented programming techniques, developing application programs using modular programming with Hypertext Preprocessor (PHP). The student will be able to develop an application and all its components such as front end / back end, Application Programming Interphase (API) and client. They will use the best practices for the development of applications with PHP, the standards and at the end of the course they will be able to create an application. It is evaluated with exams, labs, and project. Lab use is required.

**FSDE 1703 JavaScript programming with frameworks and "JS" libraries 3 Credits
60 hours**

Prerequisites: COMP 2414, FSDE 1701

The course introduces different JavaScript development techniques and how to implement frameworks and use libraries within the integrated development environment. Emphasis is placed on the interaction of JavaScript in the Node.JS platform and in "front-end" such as "AngularJS". Programming environments are used to create routines and modules that integrate with interactive Internet pages and how the process could be accelerated with its integration to the "Chrome" browser. It is evaluated with assignments and labs. Lab use is required.

FSDE 1704 Development using .NET tools 3 Credits 60 hours

Prerequisites: COMP 1205, FSDE 1701

The course emphasizes structured object-oriented programming techniques. It develops application programs using modular programming with Visual Studios and the C# programming language and its .NET frameworks. It discusses how to handle the functions, codes, and controls available in the language. It attempts to create projects with more than one window and menus, as well as discusses the concepts of database processing and access controls. It is evaluated by means of exams, laboratory, and projects. It requires the use of the laboratory.

FSDE 2701 Web Applications Security**3 Credits 60 hours***Prerequisites:* COMP 1205, COMP 2414

This course will expose the student to techniques and attacks for web technologies at different levels as well as how they should be protected. It will discuss techniques to identify vulnerabilities, manipulate them to breach systems. It presents how to protect them. It discontents the most common attack techniques and how to avoid or minimize their effects to protect your applications. It is evaluated with exams, labs, and projects.

FSDE 2702 Application Development with Python 3 Credits 60 hours*Prerequisites:* COMP 2414, FSDE 1701

The course emphasizes on structured object-oriented programming techniques, developing application programs using modular programming with Python. Students will handle the functions, codes, and controls available in the language. You will create automation projects, interpreted applications and web applications, as well as the concepts of database processing and access controls, data, and file manipulation. Lectures, demonstrations, practical and application exercises, among others, will be used to teach the course. The course will be evaluated with exams, labs, and projects. Use of the laboratory is required.

FSDE 2703 JAVA application development with focus on mobile devices 3 Credits 60 hours*Prerequisites:* COMP 2414, FSDE 1701

The course presents different Java development techniques and how to implement frameworks and use of libraries within the integrated development environment. Emphasis is placed on the interaction of Java in mobile devices, Android Studio, and web applications among others. Programming environments will be used to create routines and modules that integrate with Android artifacts. Previous knowledge of the logic behind development is required. Lecture strategies, demonstration and practical exercises are used to teach the course. Class work is evaluated. Requires use of the lab.

FSDE 2704 Development and Operations Integration 3 Credits 60 hours*Prerequisites:* FSDE 1701, FSDE 1702, FSDE 1703, FSDE 1704, FSDE 2701, FSDE 2702, FSDE 2703

The course emphasizes on development and operations integration techniques (DevOps), the technologies and techniques used that will make the developer an effective professional. The student will learn about virtualization, containers, and cloud managers. Learning will be measured with exams, labs, and projects. Lab use is required.

MATH 1701 Applied Mathematics 3 Credits 45 Hours

The course presents mathematics applied to the world of computers, programming, and networks. Emphasis is placed on the basic understanding of logic, algebra, geometry, hexadecimal, and binary understanding among others. Emphasis is placed on the use of a scientific calculator to implement the mathematics learned and solve complex calculations. Lecture strategies, demonstration and hands-on exercises are employed to deliver the course.

SEMI 1105 College and Career Success Seminar 3 Credits 45 Hours

The seminar seeks to develop and strengthen skills and abilities that will improve students' academic performance. Emphasis is placed on study skills, management and application of technological tools, time management, health and emotional well-being and stress. Emphasis is placed on the use of technological tools to elaborate and develop the course.

SPAN 1101 Basic Spanish I 3 Credits 60 hours

SPAN 1101 is intended to expand the student's basic oral and written communication skills. Special attention will be given to the study of simple grammatical sentence structure. In addition, some aspects of spelling will be studied: punctuation marks, capital and lowercase letters, accentuation, and good lexical usage. The teaching and learning process will be carried out through lectures, socialized discussion, teamwork, and interactive exercises.

SPAN 1102 Basic Spanish II 3 Credits 45 Hours

Prerequisite: SPAN 1101

The purpose of SPAN 1102 is to reaffirm oral and written communication skills. Different texts and fragments of Puerto Rican, Hispanic American and Spanish literature will be analyzed and discussed: short stories, novels, poetry, and essays. The teaching and learning process will be carried out through readings, socialized discussion, oral reports of literary analysis and teamwork.

Page 514, 516-518, the Undergraduate cost tables are replaced effective July 1, 2021.

COST TABLE UNDERGRADUATE LEVEL

Cost structure, by term, for Certificate, Associate Degree and Baccalaureate Degree Programs:

Fees and Other Charges	
Transcripts	5.00
Work experience (Pro-Sigue) - For each course requested for evaluation	*150.00
Work experience (nursing portfolio) - For each course applied for	50% cost
Challenge exams	210.00
Challenge exams-Nursing	250.00
Awarding of degrees	75.00
Document Duplication	**5.00
Replacement of ID card	5.00
University Insignia	2.50
Parking seal replacement	10.00
Diploma Duplicate	15.00
Scrubs Uniform Set for Sale	20.00
Anatomical marker	20.00
Stethoscope and sphygmomanometer	22.00
Student listener	50.00
NSF Check Returned Check Fee	20.00
Referral to collection agency	20.00
Credits Quantity	All Programs Cost per term ***
12 -18 credits	\$3,685.00
9 - 11 credits	\$2,919.00
6-8 credits	\$1,997.00
5 credits or less	\$305.00 per credit

If the student enrolls 19 credits or more, the cost (after the 18 crs.) will be computed proportionally, according to the tuition cost per semester.

* To be paid in advance.

**Per duplicate document. It does not apply to a copy of the Schedule of Classes. To be paid at the time of application.

*** Continuing students who are enrolled prior to July 1, 2021, in the Bachelor's Degree, Associate Degree and Certificate programs in Business Administration; Associate Degree in Office Administration, will have the following tuition costs:

12-18 credits	\$3,332.00
9-11 credits	\$2,499.00
6-8 credits	\$1,666.00
5 credits or less	\$ 277.00 per credit.

**Note: a. The university reserves the right to change tuition fees without prior notice.
b. The student's account will be charged the cost for: 1) value received or to be received for activities or services not contemplated above, if the student agrees with the same; and 2) fines for violation of regulations, and library, among others.**

Revision Date: May 4, 2021

Effective Date: July 1, 2021